Data Analytics: a New Imperative in Business Education

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Why a new Imperative?

AI-driven Innovation

3Vs (volume, velocity, variety)

Insight

“Every two days now we create as much information as we did from the dawn of civilization up until 2003”

Eric Schmidt
Google, Alphabet

V is the new Horizontal
(…and DATA is the only Vertical …)

Data-driven disruption
What are we training students for?

**Math Foundations**
- Multivariate Calculus
- Linear Algebra
- Statistics
- Probability
- Optimization
- Information Theory
- Artificial Intelligence
- Discrete Mathematics
- Theory of Computation

**Software Programming**
- Python
- R
- MATLAB
- Weka
- CSS
- Javascript
- SAS
- D3
- SPSS
- RapidMiner
- Tableau
- Matplotlib
- QlikView
- ggplot2

**IT Enablement**
- Unix/Linux
- SQL
- Hadoop
- NoSQL
- Spark
- OLAP
- OLAP
- Data Warehousing
- MySQL
- Hive
- Azure
- Cassandra
- AWS

**Data Analytics**
- Data Extraction and Manipulation
- Data Visualization and Reporting
- Data Mining and Predictive Modeling

The diagram illustrates the progression from research and design to practitioner and end user, with questions on how much, visual vs. coding, and how deep into IT infrastructure.